Amendment

In the Claims

1. (currently amended) A method of detecting osteoporosis in ~~a~~ an individual to be tested comprising:

a) obtaining a sample of a bone related tissue or cells; and

b) assaying the concentration of at least one marker selected from the group consisting of infectious agents, a factor produced by an infectious agent, and heat shock proteins (HSPs) produced in response to an infectious agent, and

c) comparing the concentration of the at least one marker with the concentration of the marker in a sample of the same bone related tissue or cells from a control individual who does or does not have osteoporosis and determining if there is a difference between the concentration of the at least one marker and the concentration of the marker from the control individual.

2. (previously presented) The method of claim 1 further comprising comparing the concentration of a first marker with concentrations of same marker obtained from the same individual over a period of time.

3. (previously presented) The method of claim 1 wherein the marker is a HSP and the bone related tissue or cells are obtained under conditions that do not induce a change in the amount of one or more HSPs in the tissue or cells.

4. (original) The method of claim 3 wherein the HSP is selected from the group consisting of HSP 70, HSP 60, HSP 90, gp 96, cpn10, cpn20, ubiquitin, and cpn 30.

5. (original) The method of claim 2 wherein the time period between the first assay and the second assay is at least about 12 hours.

6. (original) The method of claim 1 wherein the sample comprises bone cells or body fluid.

7. (original) The method of claim 3 wherein the HSP is HSP 60.

8. (original) The method of claim 3 wherein the HSP is HSP 70.

9. (original) The method of claim 3 wherein the HSP is ubiquitin.

10. (original) The method of claim 3 wherein the concentration of HSP is measured using an immunoassay.

11. (original) The method of claim 3 wherein the concentration of HSP is measured using an assay for a nucleotide molecule encoding HSP.

12. (previously presented) The method of claim 1 wherein the infectious agent is selected from the group consisting of bacteria, viruses, protozoa, parasites and fungi.

13. (previously presented) The method of claim 1 wherein the infectious agent is selected from the group consisting of bacterial produced factors, viral produced factors, protozoal produced factors, parasitic produced factors and fungal produced factors.

14. (currently amended) The method of claim 12 wherein the bacteria is selected from the group consisting of *Staphylococcus aureus*, *Porphyromonas gingivallis*, *Eikenella corrodens*, *Actinobacilus actinomycetemcomitans*, *Prevotella intermedia*, *Campylobacter* rectus, *Staphylococcus epidermidis*, *Salmonella spp.*, *Escherichia coli*, *Neisseria gonorrhoea*, *Neisseria*

meningitis, *Mycobacterial tuberculosis*, *Haemophius influenzae*, *Pasteurella multocida*, ~~*B.*~~ *Bordetella bronchiseptica*, and *Fusobacterium nucleatum*.

15. (previously presented) The method of claim 1 wherein the infectious agent is a bacterially produced factor selected from the group consisting of endotoxin-LPS, gapstatin, and dermonecrotic toxin (DNT).

16. (original) The method of claim 15 wherein the factor is selected from the group consisting of gapstatin and dermonecrotic toxin.

17. (original) The method of claim 15 wherein the factor is gapstatin.

18. (original) The method of claim 15 wherein the factor is dermonecrotic toxin.

19. (original) The method of claim 14 wherein the bacteria is selected from the group consisting of *Staphylococus aureus*, *Actinobacillus actinomycetemcomitans* , *Bordetella bronchiseptica*, and *Fusobacerium nucleatum*.